

REMARKS

This Amendment is filed in response to the FINAL Office action dated June 27, 2008, with Request for Continued Examination filed herewith on even date. All rejections and objections are respectfully traversed.

Claims 29 – 30, 32 – 41, and 43 – 62 are pending in this case.

Claims 31 and 42 have been cancelled.

Claims 29 – 30, 32 – 36, 38 – 41, 43 – 47, 49 – 62 have been amended.

Request for Interview

The undersigned respectfully requests a telephonic interview with the Examiner after the Examiner has had an opportunity to consider this Amendment, but before the issuance of the next Office Action. The undersigned may be reached at 617-951-2500.

Rejections Under 35 U.S.C. § 102

At paragraphs 5 – 6 of the Office Action, claims 29 – 62 were rejected under 35 U.S.C. §102(e) as being unpatentable in view of Kumar et al., U.S. Publication No. 2003/0131182, published on July 10, 2003 (hereinafter “Kumar”).

The present invention, as set forth in representative claim 29 comprises in part:

29. A method for accessing a data storage system, comprising:
receiving a login request from a first specific client, the login request directed to the data storage system;
generating, in response to the log in request, a first logical unit number map (lun map) for the specific client by determining one or more physical logical unit numbers (PLUNs) of the data storage system that the first specific client has permission to access and then mapping one or more client specific virtual logical unit numbers (VLUNs) of the first specific client to the one or more PLUNs in the first lun map;
exporting the client specific VLUNs to the first specific client; and
receiving a data access request command from the first specific client, the request directed to a selected client specific VLUN in the first lun map, and translating the client specific VLUN into a selected physical

PLUN utilizing the first lun map, and performing the data access request command on the selected PLUN associated with the data storage system.

Kumar teaches a mapping function by maintaining a lun map at a central location, such as a virtual enclosure server. (See Kumar, paragraph [0098]). The lun map is created before receiving a data access request and is typically created during “a master boot record of a particular initiator.” (See Kumar, paragraph [0054]). Further, there is only one lun map table for all hosts where the lun map identifies “for each initiator (e.g., host) 10202 those VLUNs 1203 of virtual enclosure that are visible via one or more virtual enclosure ports...”. (See Kumar, paragraph [0096] and Figure 12). Thus, Kumar’s one lun map contains lun numbers for a plurality of clients. Also, the lun map is periodically distributed to the appropriate network devices (e.g., virtualization ports) (Kumar; [0098]).

Applicant respectfully submits that Kumar fails to teach or suggest Applicant’s claimed novel *generating, in response to the log in request, a first logical unit number map (lun map) for the specific client by determining one or more physical logical unit numbers (PLUNs) of the data storage system that the first specific client has permission to access and then mapping one or more client specific virtual logical unit numbers (VLUNs) of the first specific client to the one or more PLUNs in the first lun map.*

In Short, Applicant generates its lun map in response to the login request while Kumar only distributes its lun map during the login. The creation of Kumar’s lun map happens at a much earlier time, such as a master boot. Further, Applicant’s lun map is client specific (i.e., *for the specific client*) whereas Kumar’s lun map table is system specific and contains mapping information for a plurality of clients/hosts. Moreover, Applicant’s claimed lun map includes which PLUNs the client has permission to access, while Kumar is completely silent with respect to this issue.

Applicant respectfully notes that the Examiner cites paragraph [0098] of Kumar in asserting that Kumar teaches Applicant’s claimed novel “*generating, in response to the log in request, a first logical unit number map (lun map) for the specific client.*”

(See Office Action, page 4, paragraph 6). Applicant respectfully disagrees.

Specifically, paragraph [0098], in its entirety states:

The LUN mapping table is preferably maintained at a central location such as the virtual enclosure server. However, in accordance with one embodiment, the LUN mapping table is also be provided as well as periodically distributed to the appropriate network devices (e.g., virtualization ports) within the storage area network. For instance, the LUN mapping table may be distributed at host login to a virtual enclosure port. In other words, the virtualization port is provided a LUN map corresponding to the host that has logged in via the virtual enclosure server. (Emphasis added).

Therefore, the above text from Kumar states that the mapping table may be distributed at a host login, not generated, as is claimed by Applicant. Applicant respectfully notes that terms distributed and generated are very different, and thus Applicant's novel claim is very different than paragraph [0098] of Kumar. Specifically, generated means to bring into existence; cause to be; produce, while distributed means to divide and give out in shares; deal out; allot.

Specifically, In Applicant's novel claim, a lun map (for a specific first client) is generated (i.e., created) in response to login request.

Quite differently, in Kumar the lun mapping table is distributed (i.e., disseminated) at a host login. Thus, the lun mapping table must have been created at a point previous to the distribution of the lun mapping table. The Applicant respectfully points the Examiner's attention to paragraph [0054] of Kumar that states,

Each initiator may therefore access physical LUNs via nodes located at any of the levels of the hierarchical virtualization model...Nodes within a particular virtualization level (e.g., VLUNs) need to be created before functions (e.g., read write) may be operated upon them. This may be accomplished, for example **through a master boot record** of a particular initiator. (Emphasis added).

Therefore, the text above of Kumar states that the VLUNs are created during a master boot record, Kumar does not disclose a system where the lun map is generated

during a client login as is claimed by Applicant.

Moreover, Applicant respectfully notes that Applicant's novel claim generates *a lun map for the specific client* while Kumar generates one lun mapping table for a plurality of hosts of the system. Specifically, observing figure 12 of Kumar, which is a diagram illustrating an LUN mapping table, it is the clear that the first column refers to a plurality of hosts. Therefore, the lun mapping table in Kumar is directed to the overall system in Kumar and is not directed to one specific client. Said different, Kumar fails to teach or suggest Applicant' novel claimed *generating.... a lun map for a specific client*.

Furthermore, Applicant claims "*generating, in response to the login request, a first logical unit number map (lun map) for the specific client by determining one or more physical logical unit numbers (PLUNs) of the data storage system that the first specific client has permission to access...*" Said differently, Applicant's novel claim determines whether that client has the requisite permission to access the specified PLUN. Applicant respectfully notes that this feature is fully disclosed in Fig 6, steps 610, 615, 620, and 625, as the lun map is generated at client login.

Applicant respectfully submits that there is no disclosure in the Kumar patent of this feature of Applicant's novel claim. That is, Kumar does not determine whether a client has the requisite permission to access a specific PLUN *in response to the log in request*, and also including the permission in *a first logical unit number map (lun map)* as is claimed by Applicant.

Accordingly, Applicant respectfully submits that Kumar is legally insufficient to render the present claims unpatentable under 35 U.S.C. §102(e) because of the absence in Kumar of Applicant's claimed novel *generating, in response to the log in request, a first logical unit number map (lun map) for the specific client by determining one or more physical logical unit numbers (PLUNs) of the data storage system that the first specific client has permission to access and then mapping one or more client specific virtual*

logical unit numbers (VLUNs) of the first specific client to the one or more PLUNs in the first lun map.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

/A. Sidney Johnston/
A. Sidney Johnston
Reg. No. 29,548
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500